

**REMARKS**

Favorable action on the merits is solicited in view of the foregoing amendments and the following remarks.

**I. CLAIM STATUS AND AMENDMENTS**

Claims 20-43 are pending in this application. Claims 20-29, 31, 35, and 36 are withdrawn. Claims 30, 32-34, and 37-43 are rejected.

Claims 30, 32, 33, 37 and 42 are amended in a non-narrowing manner to address the formal matters raised in the Office Action. Support can be found in general throughout the disclosure and the claims as filed. No new matter has been added.

The specification has been amended to include the attached sequence listing. No new matter has been added.

**II. CLAIM OBJECTIONS**

Claims 37 and 42 were objected to for containing minor informalities for the reasons in items 2-3 on page 2 of the Office Action.

The present amendment overcomes this objection by amending the claim to correct the noted minor informality. Withdrawal of the objection is requested.

**III. OBJECTION TO THE SPECIFICATION/SEQUENCE LISTING**

The specification was objected to as failing to comply with the Sequence Rules for not including an appropriate Sequence Listing in paper copy and computer readable form (CRF). for the reasons in item 4 on page 3.

The present amendment overcomes this objection by amending the specification to include an appropriate Sequence Listing in paper copy and computer readable form (CRF). The paper copy and CRF copy are the same and no new matter has been added.

It is respectfully submitted that the application complies with the Sequence Rules under 37 C.F.R. §§ 1.821-1.825. Therefore, the above-noted objection should be withdrawn.

#### **IV. 101 REJECTION**

Claims 30, 32, and 33 were rejected under 35 U.S.C. § 110, as being directed to non-statutory subject matter for the reasons set forth in item 6 on page 4. This rejection is respectfully traversed.

The present amendment overcomes this rejection by amending claims 30, 32, and 33 in a non-narrowing manner to reflect "isolated" polynucleotide as per the Examiner's suggestion. Withdrawal of the rejection is requested.

#### **V. INDEFINITENESS REJECTION**

Claims 32 and 34 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons in item 8 on pages 4-5 of the Office Action.

This rejection is respectfully traversed.

The claims have been amended in a non-narrowing manner to better define the claimed subject matter more clearly and distinctively to overcome the concerns in the rejection. The

amended claims reflect that the derived sequence is capable of hybridizing, in the same manner of SEQ ID NO: 10, with all or part of the nucleotide sequence complementary to the recited nucleotide sequence delimited at positions 9 and 38 of SEQ ID NOS 1, 3, and 5 as supported by the disclosure.

The claims are thus clear, definite and have full antecedent basis.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

#### **VI. PRIOR ART REJECTIONS**

Claims 30, 32, 33, and 38-40 were rejected under 35 U.S.C. § 102(b) as anticipated by MARESH (1994) for the reasons on pages 6-9 of the Office Action. Claims 30, 32, 33, and 38-43 were rejected under 35 U.S.C. § 102(b) as anticipated by GenBank GI 412525 (1993) 9-11. Claim 34 was rejected under 35 U.S.C. § 103(a) as obvious over MARESH (1994) in view of SARKA (1997) for the reasons on page 12-15. These rejections are respectfully traversed.

It appears that the rejections were made in part on the basis that the claims do not use proper transitional language and thus are overly broad and do not read on any particular sequence. The Examiner also based the rejections in part on the basis that the claims recite "represented by" in relation to certain SEQ ID NOS, and that such language does not specify any specific nucleotide content. The Examiner also argues that the claims are

overly broad because they are indefinite for the above noted reasons and that they do not require any particular contiguous sequence.

In reply, Applicants have revised the claims in a non-narrowing manner to replace "corresponds to" with the appropriate transitional language "comprising". The claims have also been amended to replace "represented by" with "of" in order to specify a nucleotide sequence comprising the specific nucleotides designated by the recited SEQ ID NOS. The claims have also been amended to remove the indefiniteness rejection. Thus, contrary to the Office's position, the claims specify a specific sequence comprising the specific contiguous nucleotides designated by the recited SEQ ID NOS.

As to claims 30, 38 and 42, the Examiner takes the position that Maresh discloses a fragment sequence (10mer 5'-CTCGAGATGG-3') containing the nucleotides situated in positions 82 to 93 of SEQ ID NO: 3. However, it should be noted that positions 82 to 93 of SEQ ID NO: 3 (of claims 30, 38, and 41) constitutes a sequence of 12 nucleotides, not 10. As such, Maresh's 10mer fragment cannot contain a sequence of 12 nucleotides. Further, based on a review of the sequence listing, it is clear that the Office's 10mer fragment (5'-CT CGA GAT GG-3') relied on in Maresh has a different sequence than the 12mer fragment (5'-tt ctg gct gta a-3') at positions 82 to 93 of SEQ ID NO: 3.

Similarly, the Office's fragment in GenBank GI 412525 is actually a 11-mer and not a 12-mer as stated in the Office Action. Moreover, contrary to the Office's position, this 11-mer fragment of 5'TT CTG CTG TAA 3' in GenBank GI 412525 has a different sequence than the 12mer fragment (5'-tt ctg gct gta a-3') at positions 82 to 93 of SEQ ID NO: 3. Thus, contrary to the Office's position the sequence in GenBank GI 412525 is not identical to positions 82-93 of SEQ ID NO: 3.

As to claim 32, Maresh and GenBank GI 412525 fail to disclose or suggest a nucleotide sequence comprising both the SIL10 nucleotide sequence of SEQ ID NO: 10: 5' GTTGCTGGAAGGAAGAACAGGATGGATCTG 3' and the SIL8 nucleotide sequence of SEQ ID NO: 11: 5' CAGTCCCAAGTGCCTGAACACACATGCACC 3'. Maresh also fails to disclose or suggest that the sequences relied upon in Maresh are capable of hybridizing, in the manner of SEQ ID NO: 10, to nucleotides 9 to 38 of SEQ ID NOS: 1, 3, and 5 are recited in claim 32.

Maresh also fails to disclose or suggest the primer pair of claims 33 and 34, wherein each of the two primers comprise, independently of one other, approximately 10 to approximately 30 nucleotides, wherein one of the two sequences of the primer pair is hybridized with a sequence of approximately 10 to approximately 30 nucleotides comprised in the nucleotide sequence complementary to the sequence delimited by the nucleotides situated in positions 1 and approximately 60 of the

nucleotide sequences SEQ ID NO: 1, 3, and 5, whilst the other sequence of this same pair is hybridized with a sequence of approximately 10 to approximately 30 nucleotides comprised between the nucleotide situated in position 94 and the last of the nucleotides of the sequences SEQ ID NO: 1, 3, and 5.

For at least the above reasons, the primary references of Maresh and GenBank GI 412525 cannot be said to disclose each and every element of the claims. Thus, the anticipation rejections over these references should fall.

The secondary reference of Sarka fails to address the deficiencies in Maresh. Sarka was merely relied upon for disclosing a labeled primer. It mentions nothing with respect to the specific sequences in the claims. Thus, the combination of Maresh and Sarka fails to render obvious the labeled primer pair of claim 34.

For these reasons, the above-noted prior art rejections are untenable and should be withdrawn.

## **VII. CONCLUSION**

Having addressed all the outstanding issues, the amendment is believed to be fully responsive. In view of the above, it is respectfully submitted that the application is in condition for allowance and notice to that effect is hereby requested. If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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